

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for determining plastic components of a blended plastic material, the method comprising:

accessing supply data describing characteristics of each of a plurality of plastic components;

receiving specification data identifying at least one desired characteristic of the blended plastic material;

processing the supply data and the specification data to determine a plurality of different combinations of certain of the plastic components that may produce the blended plastic material having the at least one desired characteristic;

determining, for ~~each~~ at least one combination, a preferred percentage of each of the plastic components of the combination; and

reporting ~~the~~ at least one selected combination[[s]] and the corresponding preferred percentages.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)
8. (Currently Amended) The method of claim 1, further including determining, for at least one combination, a set of alternative percentages associated with the plastic components of the combination.
9. (Original) The method of claim 1 wherein the determined combinations include a predetermined number of plastic components.
10. (Currently Amended) The method of claim 1 wherein the determined components include a number of plastic components within a predetermined range of numbers of components.
11. (Original) The method of claim 1, wherein the percentage of each plastic component of each combination falls within a predetermined range.
12. (Canceled)
13. (Original) The method of claim 1, wherein the specification data includes a range of values associated with one characteristic.
14. (Original) The method of claim 13, wherein the specification data includes a minimum value and a maximum value representing the range.
15. (Original) The method of claim 13, wherein the specification data includes a target value and at least one offset value.
16. (Original) The method of claim 1, wherein the method is performed on a single computer.
17. (Canceled)

18. (Canceled)

19. (Currently Amended) The method of claim 1, wherein the supply data includes data describing at least one additive which may be used in a manufacturing process; and wherein the step of processing includes processing the supply data describing the at least one additive for potential inclusion in the blended plastic material.

20. (Currently Amended) The method of claim 1, wherein the supply data includes data describing at least one enhancer which may be included in the blended plastic material; and wherein the step of processing includes processing the supply data describing the at least one ~~additive~~ enhancer for potential inclusion in the blended plastic material.

21. (Currently Amended) The method of claim 1, wherein the supply data includes data describing at least one filler which may be included in the blended plastic material; and wherein the step of processing includes processing the supply data describing the at least one filler for potential inclusion in the blended plastic material.

22. (Currently Amended) The method of claim 1, further including
receiving feedback data from a production monitor;
calibrating the preferred percentages based on the feedback data to more closely match the blended plastic material to the specification data; and
transmitting the calibrated preferred percentages to a resin blender for subsequent blending of plastic material.

23. (Canceled)

24. (Canceled)

25. (Currently Amended) A method for determining at least one plastic component of a blended plastic material, the method comprising:

accessing supply data describing characteristics of each of a plurality of plastic components;

receiving specification data identifying at least one desired characteristic of the blended plastic material;

receiving presumed plastic component data identifying at least one plastic component presumed to be included in the blended plastic material;

processing the supply data, the presumed plastic component data and the specification data to determine a plurality of different combinations of one or more plastic components and that may be combined with the presumed at least one plastic components identified by the presumed plastic component data to produce the blended plastic material having the at least one desired characteristic;

determining, for each combination, a preferred percentage of each of the plastic components of the combination and the a cost for each associated with the combination; and

reporting ~~the~~ at least one selected combinations and the corresponding preferred percentages.

26. (Currently Amended) The method of claim ~~24~~25, wherein the step of processing determines a plastic component according to at least one characteristic.

27. (Currently Amended) The method of claim ~~25~~26, wherein the step of processing determines a plastic component which is not described by the supply data.

28. (Currently Amended) The method of claim ~~24~~25, wherein the supply data is an external store of data.

29. (Currently Amended) The method of claim ~~24~~25, wherein the accessed supply data is a subset of a larger store of supply data.

30. (Canceled)

31. (Currently Amended) An apparatus for determining at least one plastic component of a blended plastic material, the apparatus comprising:

a processor; and

a memory operatively connected to the processor, said memory storing:

supply data describing characteristics of each of a plurality of plastic components;

specification data identifying at least one desired characteristic of the blended plastic material;

presumed plastic component data identifying at least one plastic component presumed to be included in the blended plastic material; and

control logic for directing the processor to:

process the supply data, the presumed plastic component data and the specification data to determine a plurality of combinations of one or more plastic components ~~and that may be combined with the presumed~~ at least one plastic component[[s]] identified by the presumed plastic component data to produce the blended plastic material having the at least one desired characteristic;;

determine, for ~~each~~ at least one combination, a preferred percentage of each of the plastic components of the combination and ~~the~~ a cost for ~~each~~ associated with the combination; and

report ~~the~~ at least one selected combination[[s]] and the corresponding preferred percentages.

32. (Canceled)

33. (Currently Amended) A computer-readable storage medium encoded with processing instructions for determining at least one plastic component of a blended plastic material, the processing instructions for directing a computer to perform the steps of:

accessing supply data describing characteristics of each of a plurality of plastic components;

receiving specification data identifying at least one desired characteristic of the blended plastic material;

receiving presumed plastic component data identifying at least one plastic component presumed to be included in the blended plastic material;

processing the supply data, the presumed plastic component data and the specification data to determine a plurality of different combinations of one or more plastic components and ~~that may be combined with the presumed~~ at least one plastic components identified by the presumed plastic component data to produce the blended plastic material having the at least one desired characteristic; and;

determining, for ~~each~~ at least one combination, a preferred percentage of each of the plastic components of the combination and ~~the~~ a cost for each associated with the at least one combination; and

reporting ~~the~~ at least one selected combinations and the corresponding preferred percentages.

34. (New) A method for determining plastic components of a blended plastic material, the method comprising:

accessing supply data describing characteristics of each of a plurality of plastic components;

receiving specification data identifying at least one desired characteristic of the blended plastic material;

processing the supply data and the specification data to determine a plurality of different combinations of plastic components that may produce the blended plastic material having the at least one desired characteristic;

determining, for at least one combination, a preferred percentage of each of the plastic components of the combination;

reporting at least one selected combination and the corresponding preferred percentages;
and

determining, for at least one combination, a second percentage of each of the plastic components of the combination, the second percentage being different from the preferred percentage for the corresponding combination.

35. (New) The method of claim 34, wherein the supply data includes a cost associated with each plastic component and the step of determining a preferred percentage of each of the plastic components is based on a total cost of the blended plastic material produced by the combination, the total cost being the sum of the percentage cost of each plastic component of the combination, the percentage cost of each plastic component of the combination being the cost of the plastic component multiplied by the preferred percentage of the plastic component.

36. (New) The method of claim 34, wherein the at least one characteristic of the blended plastic material includes a characteristic reflecting a physical property of the blended plastic material.

37. (New) The method of claim 36, wherein the at least one characteristic is a physical property relating to density.

38. (New) The method of claim 36 wherein the at least one characteristic is a grade characteristic.

39. (New) The method of claim 34, wherein reporting at least one selected combination and the corresponding preferred percentages includes sorting and presenting the selected combinations according to a cost associated with each selected combination.

40. (New) The method of claim 34, wherein the supply data includes an indicator of available volume for each plastic component, the method further including determining, for at least one combination of plastic components, a maximum volume of the blended plastic that can be produced based on the available volume and percentage of each plastic component in the at least one combination of plastic components.

41. (New) The method of claim 34 wherein the steps for processing and determining are performed on a remote computer.

42. (New) The method of claim 34, further comprising:

determining that no combination of the plastic components produces a blended plastic material having the at least one desired characteristic; and

processing the supply data and the specification data to determine at least one combination plastic components that produce a blended plastic material having a characteristic approximating the at least one desired characteristic; and;

determining, for the at least one combination, a preferred percentage of each of the plastic components of the combination.

43. (New) The method of claim 34, further including:

receiving a selection of a desired combination of plastic components to be used to produce the blended plastic material; and

transmitting the selection to an inventory management application that updates inventory quantities of components in the selected combination.

44. (New) The method of claim 34, further including:

receiving target blended plastic material data defining the plastic components and percentages of a target blended plastic material; and

wherein the step of determining includes calculating comparative cost data associated with each combination and the reporting includes reporting preferred percentages based at least in part on the target blended plastic material data.

45. (New) A method for determining plastic components of a blended plastic material, the method comprising:

accessing supply data describing characteristics of each of a plurality of plastic components including physical properties and available volume for each plastic component;

receiving specification data identifying at least one desired physical property of the blended plastic material;

processing the supply data and the specification data to determine a plurality of different combinations of plastic components that may produce the blended plastic material having the desired physical property;

determining, for each combination, a preferred percentage of each of the plastic components of the combination based on a total cost of the blended plastic material produced by the combination, the total cost being the sum of the percentage cost of each plastic component of the combination, the percentage cost of each plastic component of the combination being the cost of the plastic component multiplied by the preferred percentage of the plastic component;

determining, for at least one combination, a second percentage of each of the plastic components of the combination, the second percentage being different from the preferred percentage for the corresponding combination;

determining for each combination, a maximum volume of the blended plastic that can be produced based on the available volume and percentage of each plastic component in the at least one combination of plastic components;

sorting the combinations according to a cost associated with each combination;

reporting the sorted combinations and the corresponding preferred percentages and maximum volume of blended plastic that can be produced according to each combination;

receiving a selection of a desired combination of plastic components to be used to produce the blended plastic material; and

transmitting the selection to an inventory management application that updates the available volume of components in the selected combination.

46. Computer-readable storage media encoded with processing instructions for determining plastic components of a blended plastic material, the processing instructions for directing a computer to perform the steps of:

accessing supply data describing characteristics of each of a plurality of plastic components;

receiving specification data identifying at least one desired characteristic of the blended plastic material;

processing the supply data and the specification data to determine a plurality of different combinations of plastic components that may produce the blended plastic material having the at least one desired characteristic;

determining, for at least one combination, a preferred percentage of each of the plastic components of the combination;

reporting at least one selected combination and the corresponding preferred percentages;
and

determining, for at least one combination, a second percentage of each of the plastic components of the combination, the second percentage being different from the preferred percentage for the corresponding combination.

47. (New) An apparatus for determining plastic components of a blended plastic material, the apparatus comprising:

a processor; and

a memory operatively connected to the processor, said memory storing:

supply data describing characteristics of each of a plurality of plastic components;

specification data identifying at least one desired characteristic of the blended plastic material; and

control logic for directing the processor to:

process the supply data and the specification data to determine a plurality of different combinations of plastic components that may produce the blended plastic material having the at least one desired characteristic;

determine, for at least one combination, a preferred percentage of each of the plastic components of the combination;

determine, for at least one combination, a second percentage of each of the plastic components of the combination, the second percentage being different from the preferred percentage for the corresponding combination; and

report at least one selected combination and the corresponding preferred percentages.